SONY

3-810-597-11 (1)

FM/AM Cassette Car Stereo

Operating Instructions EN

Owner's Record

The model and serial numbers are located on the bottom of the unit.
Record the serial number in the space provided below.
Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. XR-6700 Serial No. _____

For installation and connections, see the supplied installation/connections manual.

XR-6700

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Warning

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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— Reorient or relocate the receiving antenna.
— Increase the separation between the equipment and receiver.
— Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
— Consult the dealer or an experienced radio/TV technician for help.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

Features

General

- **Detachable-front panel** enables you to take the front panel away with you when you leave your car (page 4).
- **Caution alarm** will be activated if you turn off the ignition key without removing the front panel from the unit.
- **Digital 12-hour clock** provided (page 5).
- **Built-in power amplifier (max. output: 25 W × 4 ch)** enables you to enjoy 4-speaker systems.
- Line outputs for connecting an optional power amplifier.

Cassette player section

- **Dolby* B NR system** reduces hiss noise during tape playback (page 6).
- **Intro scan function** for playing the first 10 seconds of each track (page 7).
- **Repeat play function** for playing back a track repeatedly (page 7).
- **ATA (Automatic Tuner Activation)** for automatically turning on the tuner while fast-forwarding or rewinding a tape (page 7).
- **Blank skip function** for automatically skipping blanks during tape playback (page 7).

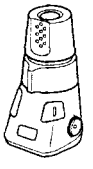
* *Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "DOLBY" and the double-D symbol ⊡⊡ are trademarks of Dolby Laboratories Licensing Corporation.*

Tuner section

- Up to 30 stations can be preset: 18 FM stations and 12 AM stations.
- **BTM (Best Tuning Memory) function** automatically locates and stores the stations with the strongest signals on the preset number buttons in order of band frequency (page 8).

The optional rotary commander can be used.

You can use the rotary commander (RM-X2S) which is operated like your car's wiper or headlight switch while driving.



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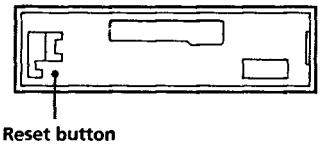
Precautions

- Before operating the unit for the first time or after replacing the car battery, press the reset button with a ball-point pen etc., then operate the unit.



Reset button

- If your car was parked in direct sunlight resulting in a considerable rise in temperature inside the car, allow the unit to cool off before operating it.
- If no power is being supplied to the unit, check the connections first. If everything is in order, check the fuse.
- If no sound comes from the speakers in 2-speaker systems, set the fader control to the center position.

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If you have any questions or problems concerning your unit that are not covered in this manual, please consult your nearest Sony dealer.

Notes on Cassettes

Cassette care

- Do not touch the tape surface of a cassette, as any dirt or dust will contaminate the playback heads of the unit.
- Keep cassettes away from equipment with built-in magnets such as speakers and amplifiers, as erasure or distortion on the recorded tape could occur.
- Do not expose cassettes to direct sunlight, extremely cold temperatures or moisture.
- When the tape is played back for a long period, the cassette shell may become warm because of the built-in power amplifier. However, this is not a sign of a malfunction.

Cassettes longer than 90 minutes

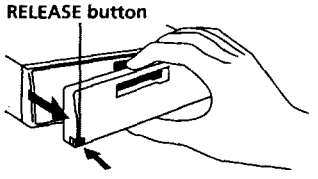
The use of cassettes longer than 90 minutes is not recommended except for long continuous play. The tape used for these cassettes is very thin and tends to stretch easily. Frequent playing and stopping of these tapes may cause them to be pulled into the cassette deck mechanism.

Detaching and Attaching the Front Panel

The front panel of this unit can be detached in order to prevent the unit from being stolen.

Detaching the Front Panel

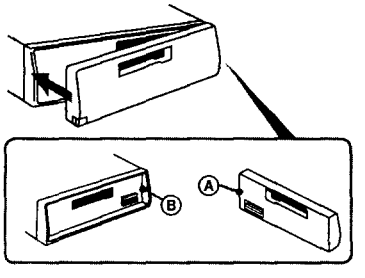
Before detaching the front panel, be sure to press the OFF button first. Then press the RELEASE button to open up the front panel and detach the panel by pulling it towards you as illustrated.



Be sure not to drop the panel after detaching it from the unit.

Attaching the Front Panel

Apply the right hand side of the front panel to the unit by attaching part Ⓐ of the front panel to part Ⓑ of the unit as illustrated and push until it clicks.



Notes

- *Make sure that the front panel is the right way up when attaching it to the unit as it cannot be attached upside down.*
- *Do not press the front panel hard against the unit when attaching it to the unit. It can easily be attached by pressing it lightly against the unit.*
- *When you carry the front panel with you, put it in the supplied front panel case.*
- *Do not press hard or give excessive pressure to the display window of the front panel.*
- *Before removing the front panel, be sure to turn the power off. However, if you press the RELEASE button to detach the panel while the unit is still turned on, the power will automatically turn off in order to protect the speakers from being damaged.*
- *Do not expose the front panel to direct sunlight, heat sources such as hot air ducts or leave it in a humid place. Never leave it on the dashboard etc. of a car parked in direct sunlight where there may be a considerable rise in temperature inside the car.*

Caution alarm

If you turn the ignition key to the OFF position without removing the front panel, the caution alarm will be activated and a beep tone will be heard for a few seconds (only when the POWER SELECT switch is set to the Ⓐ position).

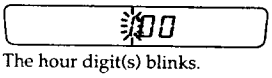
Setting the Clock

The clock has a digital indication.

For example, setting it to 10:08

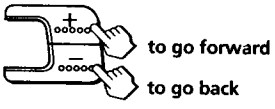
1 Display the time.
(Press the DSPL Ⓓ button during unit operation.)

2 Press the DSPL Ⓓ button for more than two seconds.

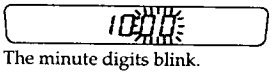


The hour digit(s) blinks.

Set the hour digits.

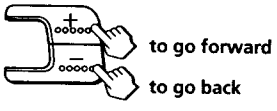


3 Press the SEL button momentarily.

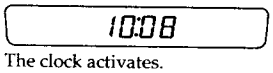


The minute digits blink.

Set the minute digits.



4 Press the DSPL Ⓓ button momentarily.



The clock activates.

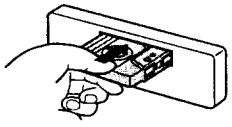
Note

If the POWER SELECT switch on the bottom of unit is set to the Ⓑ position, the clock cannot be set unless the power is turned on. Set the clock after you have turned on the radio, or started cassette playback.

Cassette Player Operation

Listening to Tape Playback

After inserting the cassette, playback will start automatically.



If a cassette is already inserted, press the TAPE button to start playback.

If you press this button during playback, the tape transport direction will change.

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Indication of Tape Transport Direction

The side facing up is being played.

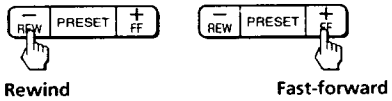
The side facing down is being played.

To stop playback,
eject the cassette by pressing the ⏏ button or press the OFF button.
Playback also stops when you select the radio by pressing the FM or AM button.

Ejecting the Cassette

Press the ⏏ button.

Fast-winding the Tape



Rewind **Fast-forward**

To start playback while rewinding or fast-forwarding, press the TAPE button.

Playing a Tape Recorded in the Dolby B NR System

Press the 3 DOLBY NR button when you want to listen to a tape recorded in the Dolby B NR system. → "DOLBY NR" appears in the display.
To cancel, press again.

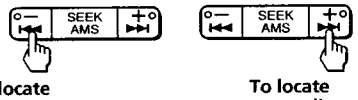
Playing a CrO_2 or Metal Tape

Press the 4 MTL button when you want to listen to a CrO_2 (TYPE II) or metal (TYPE IV) tape. → "MTL" will appear on the display.
To cancel, press again.

Locating the Beginnings of Tracks

— AMS (Automatic Music Sensor) Function

During playback, press either side of the SEEK/AMS button once for each track you wish to skip.



To locate previous tracks **To locate succeeding tracks**

Up to nine tracks can be skipped.

If the blanks between the tracks are shorter than four seconds, or if there are noises, the AMS function will not work properly. Also, the unit may read long sections of low volume music or quiet sections on a track as blanks between tracks.

Searching for the Desired Track — Intro Scan Function

Press the [1 INTRO] button during playback. → "INTRO" appears on the display.
The first 10 seconds of all the tracks are played. When you find the desired track, press the button once more. The unit returns to normal playback mode.

Playing Tracks Repeatedly

— Repeat Play Function

Press the [2 REP] button during playback. → "REP" appears on the display.
When the currently played track is over, it will be played again from the beginning.
To cancel this mode, press the button again.

Radio Reception during Fast-forwarding or Rewinding of a Tape

— ATA (Automatic Tuner Activation) Function

Press the [5 ATA] button during playback. → "ATA" appears on the display.
When fast-forwarding or rewinding with the [– REW | PRESET | + FF] button, the tuner will turn on automatically.

Skipping Blanks Automatically during Tape Playback — Blank Skip Function

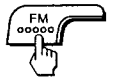
Press the [6 BL. SKIP] button during playback. → "BL.SKIP" appears on the display.
Blanks longer than eight seconds will be automatically skipped during tape playback.

Radio Reception

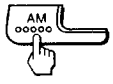
Searching for Stations Automatically

— Automatic Tuning

1 Select the desired band.

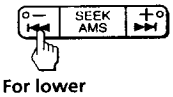


FM1 → FM2 → FM3 → FM1 → ···

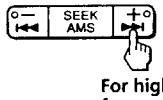


AM1 ↔ AM2

2 Press either side of the SEEK/AMS button once to search for the next station (automatic tuning).



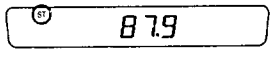
For lower frequencies



For higher frequencies

The scanning stops when a station is received. Press either side of the button repeatedly until the desired station is received.

When an FM stereo program with sufficient signal strength is tuned in,



The "ST" indication appears.

To keep the automatic tuning from stopping on stations too frequently (local seek mode), press the [LCL] button momentarily to get the "LCL" indication.
Only the stations with relatively strong signals will be tuned in. The local seek mode functions only when automatic tuning is in operation.

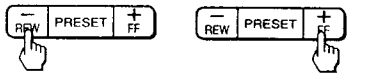
If FM Stereo Reception is Poor — Monaural Mode

Press the [MONO] button momentarily. → "MONO" appears on the display.
The sound will improve, but it will be monaural.

Tuning in by Adjusting the Frequency — Manual Tuning

1 Select the desired band.

2 Press and hold either side of the PRESET button.
Release the button when the desired station is received.



For lower frequencies

For higher frequencies

PREVENT ACCIDENTS!
When tuning in while driving, use automatic tuning or the memory preset search function (page 9) instead of manual tuning.

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Memorizing Stations Automatically

— BTM (Best Tuning Memory) Function

This function selects from the currently received band the stations with the strongest signals and memorizes them in the order of their band frequency.

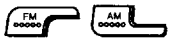
1 Select the desired band.

2 Press the BTM (6) button for more than two seconds.
- When there is no preset number indicated in the display window, stations will be stored on all preset number buttons on the currently selected band.
- When there is a preset number indicated in the display window, the unit will store stations on all preset number buttons from the one currently displayed.

For example, when you select FM2 and preset number 3 is displayed,
the operation will start from preset number 3 on FM2, and will stop at preset number 6 on FM3.

Memorizing Only the Desired Stations

1 Select the desired band.



2 Tune in the station which you wish to store on a preset number button.

3 Press and hold the desired preset number button ([1 INTRO] to [6 BL. SKIP]) for about two seconds until you hear a beep tone.

The number of the pressed preset number button appears on the display window.

Up to 6 stations on each band (FM1, FM2, FM3, AM1 and AM2 can be stored on the preset number buttons in the order of your choice. Therefore, 18 FM stations can be memorized.
If you try to store another station on the same preset number button, the previously stored station will be erased.

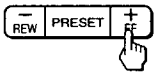
Receiving the Memorized Stations

1 Select the desired band.

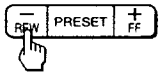
2 Press momentarily the preset number ([1 INTRO] to [6 BL. SKIP]) button on which the desired station is stored.

Note
If you press the preset number button for more than two seconds, the currently received station will be memorized. To receive the previously memorized station, make sure that the preset number button is pressed only momentarily.

Press either side of the PRESET button momentarily to receive other stations stored in the memory (Preset Search Function).



Press momentarily
1 → 2 → ··· → 5 → 6 → 1 → ···



Press momentarily
1 → 6 → 5 → ··· → 2 → 1 → ···

Other Functions

Adjusting the Sound Characteristics

1 Select the item you want to adjust by pressing the SEL button repeatedly.

VOL (volume) → BAS (bass) → TRE (treble) → BAL (balance) → FAD (fader) → VOL (volume) → ···

2 Adjust the selected item by pressing either the + or − button.

Adjust within three seconds after selecting. (After three seconds the buttons will again serve as volume control buttons.)

Enjoying Bass and Treble at Low Volume

— Loudness Function

Press the LOUD button. → "LOUD" will appear on the display.
The bass and treble will be boosted.
To cancel, press again.

Muting the Sound Quickly

— Mute Function

Press the MUTE button. → The "MUTE" indication flashes.
The sound is muted at once.
To restore the previous volume level, press again.

This function will be also canceled when:
— the + or OFF button is pressed.
— ejecting a cassette by pressing the ⏏ button during tape playback.

Muting the Beep Tone

Press the 6 BL SKIP button while pressing the SEL button.

To reactivate the beep tone, press these buttons once more.

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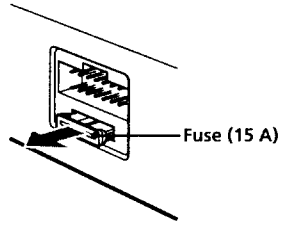
Maintenance

Fuse Replacement

When replacing the fuse, be sure to use one matching the amperage rating stated on the fuse. If the fuse blows, check the power connection and replace the fuse. If the fuse blows again after replacement, there may be an internal malfunction. In such a case, consult your nearest Sony dealer.

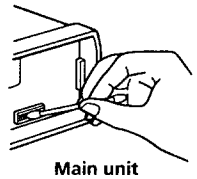


Warning

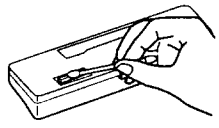
Never use a fuse with an amperage rating exceeding the one supplied with the unit as this could damage the unit.

Cleaning the Connectors

The unit may not function properly if the connectors between the unit and the front panel are not clean. In order to prevent this, open the front panel by pressing the RELEASE button, then detach it and clean the connectors with a cotton swab which was dipped in alcohol. Do not apply too much force. Otherwise, the connectors may be damaged.



Main unit

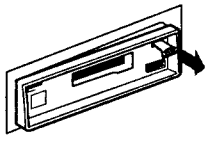


Back of the front panel

Dismounting the Unit

1

2



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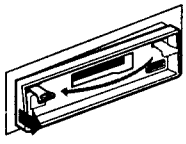

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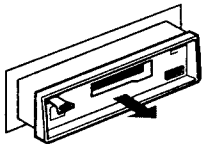
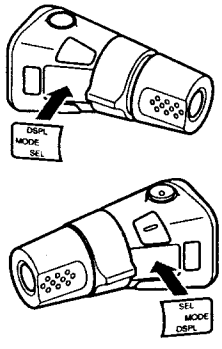


Notes on Using the Optional Rotary Commander RM-X2S

This unit can be operated with the optional the rotary commander (RM-X2S).

The Rotary Commander Labels

Four button name labels are supplied with the rotary commander. Attach that label which matches the functions of the master unit and the installation position of the rotary commander.
If you connect this unit, attach the label which has "DSPL" on it.

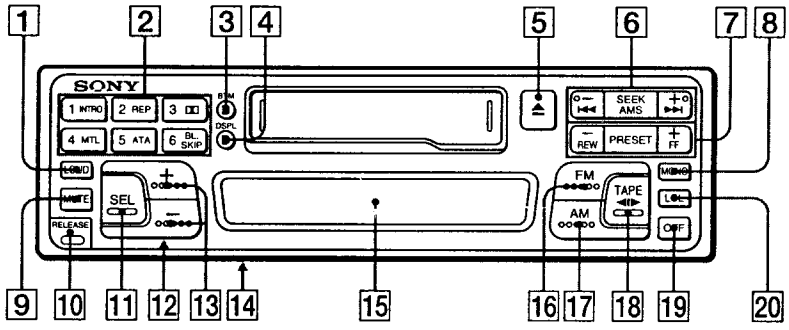


Attach the appropriate label for the installation position of the rotary commander.

Turning the Rotary Commander ON/OFF

When the POWER SELECT switch (located on the bottom of the unit) on this unit is set to the ⓑ position, this unit cannot be operated with the commander unless one of the operational buttons is pressed or a cassette is inserted to activate this unit.

Location of Controls



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Refer to the pages in ● for details.

1 **LOUD (loudness) button ❾**

2 **During radio reception:**
Preset number buttons ❽

During tape playback:

- 1 INTRO **INTRO button ❼**
- 2 REP **REPEAT button ❼**
- 3 DD **DD (Dolby B NR) button ❻**
- 4 MTL **MTL (Cassette type select) button ❻**
- 5 ATA **ATA (Automatic Tuner Activation) button ❼**
- 6 BL. SKIP **BL.SKIP button ❼**

3 **BTM (Best Tuning Memory) button ❽**

4 **DSPL (display mode change/time set) button ❺**

5 **⏏ (eject) button ❻❾**

6 **SEEK/AMS button ❻❼**

7 **PRESET button ❻❼❽❾**

8 **MONO button ❼**

9 **MUTE button ❾**

10 **RELEASE (front panel release) button ❹❿**

11 **SEL (control mode select) button ❺❾❿**

12 **Reset button (located on the front side of the unit hidden by the front panel) ❹**
Press this button when you use this unit for the first time, when you have changed the car battery, or when the buttons of this unit do not function properly.

13 **(volume/bass/treble/balance/fader control) buttons ❺❾**

14 **POWER SELECT switch (located on the bottom of the unit)**
See "POWER SELECT Switch" in the Installation/connections manual.

15 **Display window**

16 **FM (radio on/band select) button ❻❼❽**

17 **AM (radio on/band select) button ❻❼❽**

18 **TAPE/◀II▶ (playback/transport direction change) button ❻**

19 **OFF button ❹❻❾**

20 **LCL (local seek adjust) button ❼**

Specifications

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION
7 watts per channel minimum continuous average power into 4 ohms, 4 channels driven from 20 Hz to 20 kHz with no more than 1% total harmonic distortion.

Other Specifications

Cassette player section

Tape track	4-track 2-channel stereo
Wow and flutter	0.08 % (WRMS)
Frequency response	30 – 18,000 Hz
Signal-to- noise ratio	

Cassette type	Dolby NR off	Dolby B NR
TYPE II, IV	61 dB	67 dB
TYPE I	58 dB	64 dB

Tuner section

FM

Tuning range	87.5 – 107.9 MHz
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz
Usable sensitivity	13 dBf
Selectivity	70 dB at 400 kHz
Signal-to-noise ratio	65 dB (stereo), 68 dB (mono)
Harmonic distortion at 1 kHz	0.5 % (stereo), 0.3 % (mono)
Separation	33 dB at 1 kHz
Frequency response	30 – 15,000 Hz
Capture ratio	2 dB

AM

Tuning range	530 – 1,710 kHz
Antenna terminal	External antenna connector
Intermediate frequency	450 kHz
Sensitivity	32 µV

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 – 8 ohms
Maximum power output	25 W × 4 (at 4 ohms)

General

Output lead	Power antenna relay control lead/Power amplifier control lead
Tone controls	Bass ±8 dB at 100 Hz Treble ±8 dB at 10 kHz
Power requirements	12 V DC car battery (negative ground)
Dimensions	Approx. 188 × 58 × 176 mm ($7\ ^1/_2 \times 2\ ^3/_8 \times 7$ in.) (w/h/d)
Mounting dimension	Approx. 182 × 53 × 155 mm ($7\ ^1/_4 \times 2\ ^1/_8 \times 6\ ^1/_8$ in.) (w/h/d)
Mass	Approx. 1.2 kg (2 lb. 10 oz.)
Supplied accessories	Parts for installation and connections (1 set) Front panel case (1)
Optional accessories	RCA pin cord RC-63 (1 m), RC-64 (2 m), RC-65 (5 m)
Optional equipment	Rotary Commander RM-X2S

Design and specifications are subject to change without notice.

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Troubleshooting Guide

The following checklist will assist in the correction of most problems which you may encounter with your unit.
Before going through the checklist below, refer to the connection and operating procedures.

General

Problem	Cause/Solution
No sound	• Adjust the volume with the button. • Set the fader control to the center position for 2-speaker systems.
Indications do not appear in the display window.	Remove the front panel and clean the connectors. See "Cleaning the Connectors" of "Maintenance" for details.

Tape playback

Problem	Cause/Solution
Playback sound is distorted.	Contamination of the tape head. → Clean the head.
The AMS does not operate correctly.	• There is noise in the space between tracks. • A blank space is too short (less than four seconds). • on the SEEK/AMS button is pressed immediately before the following track. • on the SEEK/AMS button is pressed immediately after the track starts. • A long pause, a passage of low frequencies or very low sound level is treated as a blank space.

Radio reception

Problem	Cause/Solution
Preset tuning is not possible.	• Memorize the correct frequency. • The broadcast is too weak.
Automatic tuning is not possible.	The broadcast is too weak. → Use manual tuning.
The "ST" indication flashes.	• Tune in precisely. • The broadcast is too weak. → Press the MONO button to enter the MONO mode.